

# PATENT COOPERATION TREATY

## PCT

### INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference 2004P01388WO	FOR FURTHER ACTION		See item 4 below
International application No. PCT/EP2005/051381	International filing date ( <i>day/month/year</i> ) 24 March 2005 (24.03.2005)	Priority date ( <i>day/month/year</i> ) 26 March 2004 (26.03.2004)	
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237			
Applicant SIEMENS AKTIENGESELLSCHAFT			

- This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis.1(a).
- This REPORT consists of a total of 8 sheets, including this cover sheet.  
  
In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.
- This report contains indications relating to the following items:
 

<input checked="" type="checkbox"/> Box No. I	Basis of the report
<input type="checkbox"/> Box No. II	Priority
<input type="checkbox"/> Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
<input type="checkbox"/> Box No. IV	Lack of unity of invention
<input checked="" type="checkbox"/> Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
<input type="checkbox"/> Box No. VI	Certain documents cited
<input type="checkbox"/> Box No. VII	Certain defects in the international application
<input type="checkbox"/> Box No. VIII	Certain observations on the international application
- The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland  Facsimile No. +41 22 338 82 70	Date of issuance of this report 01 November 2006 (01.11.2006)
	Authorized officer  Yolaine Cussac  e-mail: pt11@wipo.int

# PATENT COOPERATION TREATY

From the  
INTERNATIONAL SEARCHING AUTHORITY

To:

**TRANSLATION**  
**PCT**

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Date of mailing (day/month/year)		<b>See form PCT/ISA/210</b>
Applicant's or agent's file reference <b>2004P01388WO</b>		<b>FOR FURTHER ACTION</b> See paragraph 2 below
International application No. <b>PCT/EP2005/051381</b>	International filing date (day/month/year) <b>24.03.2005</b>	Priority date (day/month/year) <b>26.03.2004</b>
International Patent Classification (IPC) or both national classification and IPC <b>B60R21/01</b>		
Applicant <b>SIEMENS AKTIENGESELLSCHAFT</b>		

<p>1. This opinion contains indications relating to the following items:</p> <table style="width: 100%;"> <tr> <td style="width: 5%; text-align: center;"><input checked="" type="checkbox"/></td> <td style="width: 25%;">Box No. I</td> <td>Basis of the opinion</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. II</td> <td>Priority</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. III</td> <td>Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. IV</td> <td>Lack of unity of invention</td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>Box No. V</td> <td>Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. VI</td> <td>Certain documents cited</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. VII</td> <td>Certain defects in the international application</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. VIII</td> <td>Certain observations on the international application</td> </tr> </table>		<input checked="" type="checkbox"/>	Box No. I	Basis of the opinion	<input type="checkbox"/>	Box No. II	Priority	<input type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability	<input type="checkbox"/>	Box No. IV	Lack of unity of invention	<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement	<input type="checkbox"/>	Box No. VI	Certain documents cited	<input type="checkbox"/>	Box No. VII	Certain defects in the international application	<input type="checkbox"/>	Box No. VIII	Certain observations on the international application
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<input type="checkbox"/>	Box No. VIII	Certain observations on the international application																							
<p>2. <b>FURTHER ACTION</b></p> <p>If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.</p> <p>If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.</p> <p>For further options, see Form PCT/ISA/220.</p>																									
<p>3. For further details, see notes to Form PCT/ISA/220.</p>																									

Name and mailing address of the ISA/EP	Authorized officer
Facsimile No.	Telephone No.

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

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Box No. I

Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.  
☐ This opinion has been established on the basis of a translation from the original language into the following language \_\_\_\_\_, which is the language of a translation furnished for the purposes of international search (under Rule 12.3 and 23.1(b)).
2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
  - a. type of material  
☐ a sequence listing  
☐ table(s) related to the sequence listing
  - b. format of material  
☐ in written format  
☐ in computer readable form
  - c. time of filing/furnishing  
☐ contained in the international application as filed.  
☐ filed together with the international application in computer readable form.  
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

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Box No. V	Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement		
1. Statement			
Novelty (N)	Claims	<u>1-7</u>	YES
	Claims		NO
Inventive step (IS)	Claims	<u>1-7</u>	YES
	Claims		NO
Industrial applicability (IA)	Claims	<u>1-7</u>	YES
	Claims		NO
2. Citations and explanations:			
<b>1 Prior art documents</b>			
This opinion makes reference to the following documents:			
D1: US-B1-6 587 770 (GRAY CHARLES A <i>ET AL.</i> ) 1 July 2003 (2003-07-01)			
D2: DE 197 41 451 A1 (VOLKSWAGEN AG, 38440 WOLFSBURG, DE) 25 March 1999 (1999-03-25)			
D3: US-B1-6 476 516 (REICH DANIEL) 5 November 2002 (2002-11-05)			
D4: US 2002/118104 A1 (SAKAI MORIO <i>ET AL.</i> ) 29 August 2002 (2002-08-29)			
D5: EP-A-0 930 032 (MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD) 21 July 1999 (1999-07-21)			
D6: DE 101 60 121 A1 (SIEMENS AG) 26 June 2003 (2003-06-26)			
D7: US-A-6 087 598 (MUNCH <i>ET AL.</i> ) 11 July 2000 (2000-07-11)			
<b>2 Claims 1 to 7</b>			
2.1 Claim 1, novelty			
Document D1 is considered to be the closest prior			

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Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement

art to the subject matter of claim 1. It discloses (the references between parentheses relate to said document, see figure 1) a method for determining a variable which is characteristic of a mass which rests on the seating area of a seat (10), in which an estimated value of the variable which is characteristic of the mass which rests on the seating area is determined as a function of at least one force which acts on the seating area and which is detected by at least one force sensor (22).

The subject matter of claim 1 therefore differs from the known method in that the estimated value is identified as being reliable or unreliable as a function of the oscillation behaviour of a measurement signal of the at least one force sensor.

The subject matter of claim 1 is therefore novel (PCT Article 33(2)).

2.2 Claim 1, inventive step

The problem addressed by the present invention can therefore be considered that of further improving the known method for determining a variable which is characteristic of a mass.

The solution to this problem which is proposed in claim 1 of the present application involves an inventive step (PCT Article 33(3)) for the following reasons:

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Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement

Although document D1 discloses a method for determining a variable which is characteristic of a mass, the oscillation behaviour of the measurement signal is not taken into account and the reliability of an estimated value is not evaluated.

The solution as per the features of claim 1 overall therefore does not appear to be known from the prior art nor suggested by it.

This obviously provides reliable detection of seat occupancy.

2.3 Dependent claims 2 to 6

Claims 2 to 6 are dependent on claim 1 and therefore likewise meet the PCT requirements for novelty and inventive step within the meaning of PCT Article 33(2) and (3).

2.4 Claim 7, novelty

Document D1 is considered to be the closest prior art to the subject matter of claim 7. It discloses (the references between parentheses relate to said document, see figure 1) an apparatus for determining a variable which is characteristic of a mass which rests on a seating area of a seat (10), having means

- which determine an estimated value of the variable which is characteristic of the mass which rests on the seating area, to be precise as a function of at least one force which acts

Box No. V

Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement

on the seating area and which is detected by  
at least one force sensor (22).

The subject matter of claim 7 therefore differs from  
the known apparatus by means which identify the  
estimated value as being reliable or unreliable as a  
function of the oscillation behaviour of the  
measurement signal of the at least one force sensor.

The subject matter of claim 7 is therefore novel  
(PCT Article 33(2)).

#### 2.5 Claim 7, inventive step

The problem addressed by the present invention can  
therefore be considered that of further improving  
the known method for determining a variable which is  
characteristic of a mass.

The solution to this problem which is proposed in  
claim 7 of the present application involves an  
inventive step (PCT Article 33(3)) for the following  
reasons:

Although document D1 discloses an apparatus having  
means for determining a variable which is  
characteristic of a mass, the oscillation behaviour  
of the measurement signal is not taken into account  
and the reliability of an estimated value is not  
evaluated.

The solution as per the features of claim 7 overall

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Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement

therefore does not appear to be known from the prior art nor suggested by it.

This obviously provides reliable detection of seat occupancy.

**3 Industrial applicability**

The subject matter of claims 1 to 7 also appears to meet the requirements of PCT Article 33(4) since it appears that it can be produced and/or implemented and also used at least in the field of motor-vehicle engineering.